

## Isolate the Variable on Single Step Equations

Questions to asked yourself:

1. What is the sign of the variable? (Positive or Negative)
2. What is the operation? (Multiplication or Division)
3. What is the number being multiplied or divided?

$$-5x = 35$$

Questions to asked yourself:

1. What is the sign of the variable? (~~Positive~~ or **Negative**)
2. What is the operation? (**Multiplication** or ~~Division~~)
3. What is the **number** being multiplied or divided? **5**

Isolate the variable by

- Keep the sign negative
- Perform the Inverse Operation of Multiplication, which is Division. (Two Ways)

• a) Divide  $\frac{-5x}{-5} = \frac{35}{-5} \quad x = -7$  or you can...

• b) Multiply  $\frac{1}{-5} \cdot (-5x) = \frac{1}{(-5)} \cdot 35 \quad x = -7$

Recall that  $\frac{1}{8} \cdot 8 = \frac{1}{8} \cdot \frac{8}{1} = \frac{(1 \cdot 8)}{(8 \cdot 1)}$  Use Commutative Property  $\frac{(1 \cdot 8)}{(1 \cdot 8)} = 1$

The **Commutative Property of Multiplication** allows us to rearrange numbers in a product.

$$a \cdot b = b \cdot a \quad \text{For all real numbers } a \text{ \& } b.$$